



# Cambridge International AS & A Level

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**INFORMATION TECHNOLOGY**

**9626/02**

Paper 2 Practical

**May/June 2023**

**MARK SCHEME**

Maximum Mark: 90

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**Published**

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

Cambridge International will not enter into discussions about these mark schemes.

Cambridge International is publishing the mark schemes for the May/June 2023 series for most Cambridge IGCSE, Cambridge International A and AS Level and Cambridge Pre-U components, and some Cambridge O Level components.

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This document consists of **14** printed pages.

### Generic Marking Principles

These general marking principles must be applied by all examiners when marking candidate answers. They should be applied alongside the specific content of the mark scheme or generic level descriptors for a question. Each question paper and mark scheme will also comply with these marking principles.

#### GENERIC MARKING PRINCIPLE 1:

Marks must be awarded in line with:

- the specific content of the mark scheme or the generic level descriptors for the question
- the specific skills defined in the mark scheme or in the generic level descriptors for the question
- the standard of response required by a candidate as exemplified by the standardisation scripts.

#### GENERIC MARKING PRINCIPLE 2:

Marks awarded are always **whole marks** (not half marks, or other fractions).

#### GENERIC MARKING PRINCIPLE 3:

Marks must be awarded **positively**:

- marks are awarded for correct/valid answers, as defined in the mark scheme. However, credit is given for valid answers which go beyond the scope of the syllabus and mark scheme, referring to your Team Leader as appropriate
- marks are awarded when candidates clearly demonstrate what they know and can do
- marks are not deducted for errors
- marks are not deducted for omissions
- answers should only be judged on the quality of spelling, punctuation and grammar when these features are specifically assessed by the question as indicated by the mark scheme. The meaning, however, should be unambiguous.

#### GENERIC MARKING PRINCIPLE 4:

Rules must be applied consistently, e.g. in situations where candidates have not followed instructions or in the application of generic level descriptors.

#### GENERIC MARKING PRINCIPLE 5:

Marks should be awarded using the full range of marks defined in the mark scheme for the question (however; the use of the full mark range may be limited according to the quality of the candidate responses seen).

#### GENERIC MARKING PRINCIPLE 6:

Marks awarded are based solely on the requirements as defined in the mark scheme. Marks should not be awarded with grade thresholds or grade descriptors in mind.

Task	Answer	Marks
1	<b>Tables</b> Database contains cars table	1
	Database contains model table	1
	Database contains paint table	1
	Database contains drive table	1
	Database contains extras table	1
	No ID fields	1
	All tables have no repeated fields / duplicate data	1
	All tables have short meaningful field names	1
	<b>Relationships</b> Relationship model.Name to cars.Model ...	1
	...1 to many	1
	... with referential integrity set	1
	Relationship paint.P_code to cars.Colour ...	1
	...1 to many	1
	... with referential integrity set	1
	Relationship drive.D_code to cars.Drive...	1
	...1 to many	1
	... with referential integrity set	1
	Relationship extras.E_code to cars.Extras	1
	...1 to many	1
	<b>Cars table</b> Appropriate table name e.g. Car, Cars, Vehicles	1
	Appropriate fieldnames	1
	Reg_No as primary key	1
	Reg_No – 7 characters long	1
	Model field alphanumeric/text	1
	Model field 12 characters long	1
	Colour data type set to integer	1

Task	Answer	Marks
1	Drive field alphanumeric/text	1
	Drive field 1 character	1
	Extras field alphanumeric/text	1
	Extras field 3 characters	1
	Year data type restricted to integer	1
	At least 1 appropriate validation routine	1
	<b>Drive table</b> Table name – appropriate e.g. Engine	1
	Appropriate fieldnames	1
	D_Code as primary key & alphanumeric	1
	Drive field as alphanumeric/text	1
	Cost field as numeric/currency to 2dp	1
	One correct field length	1
	<b>Extras table</b> Table name – appropriate e.g. Extras	1
	Appropriate fieldnames	1
	E_Code as primary key & alphanumeric	1
	Extras field as alphanumeric/text	1
	Cost field as numeric/currency to 2dp	1
	One correct field length	1
	<b>Model table</b> Appropriate Table name e.g. Model	1
	Appropriate fieldnames	1
	Name/Model as primary key and alphanumeric	1
	Body Style field as alphanumeric/text	1
	Cost field as numeric/currency to 2dp	1
	One correct field length	1
	<b>Paint table</b> Table name – appropriate e.g. Colour/s	1
	Appropriate fieldnames	1

Task	Answer	Marks
1	P_Code as primary key	1
	P_Code as integer	1
	Colour field as alphanumeric/text	1
	Colour field length = 13	1
	Factor field as decimal	1
	<b>Calculated fields</b> Calculated fields created called Cost and Price	1
	Cost field = Model + Drive + Extras ...	1
	...+ (200 ...	1
	... * Paint.factor)	1
	Cost field – All table and field names in square brackets	1
	Price field = 1.8 *	1
	...[Cost] + 1000...	1
	...in brackets	1

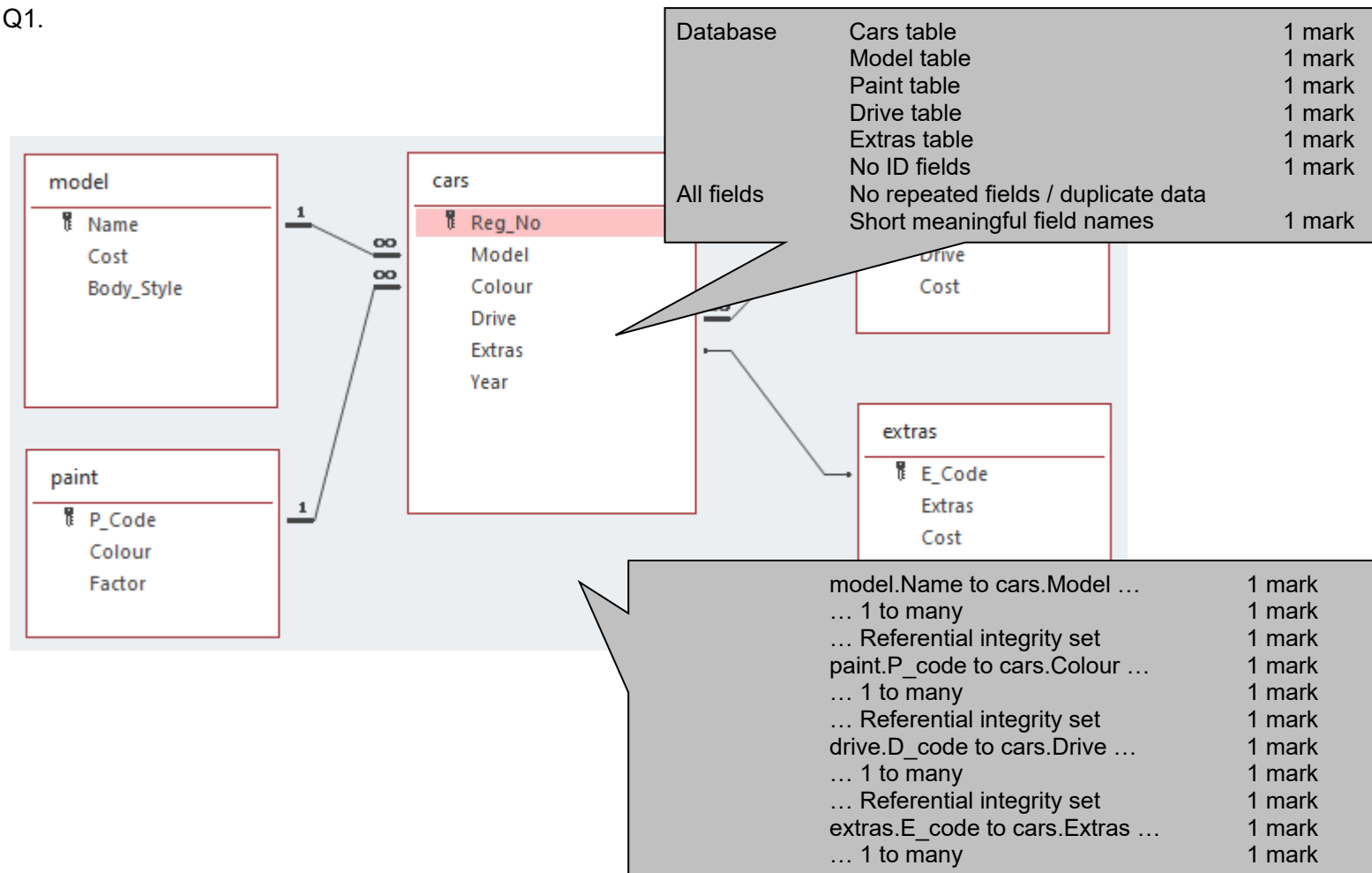
Task	Answer	Marks
2	<b>Query</b> Made in 2019	1
	Wildcard search on LED lighting	1
	Wildcard search for black, grey or blue	1
	<b>Report</b> Appropriate title with candidate details	1
	White text on a black background for title	1
	Grouped by colour and model	1
	Only 9 title text boxes and controls visible...	1
	... aligned as shown	1
	... containing the vehicle details only	1
	<b>PDF</b> Exported pdf – Correct 11 records located	1
	Exported as step_2_ZZ999_9999.pdf file	1

Task	Answer	Marks
3	23clip1 – Reverb added to the clip	1
	23clip1 – Sound amplified to maximum...	1
	... without clipping	1
	23clip1 – Noise reduction applied	1
	Exported as clip1_zz999_9999.mp3	1

Task	Answer	Marks
4	Clip 2 split with start of clip unchanged...	1
	... added silence until 8.25 seconds	1
	Better for the planet' moved to 8.25 seconds	1
	Both tracks mixed down to mono	1
	Two mono tracks mixed down to stereo track...	1
	... Male voiceover left channel	1
	... Female voiceover right channel	1
	... no loss of voice track/s or distortion	1
	Exported in mp3 format as j23sound_ZZ999_9999.mp3	1

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Q1.



**Edit Relationships** ? X

Table/Query: **model** Related Table/Query: **cars** OK Cancel

Name Model Join Type.. Create New..

☒ Enforce Referential Integrity  
☐ Cascade Update Related Fields  
☐ Cascade Delete Related Records

Relationship Type: One-To-Many

**Edit Relationships** ? X

Table/Query: **paint** Related Table/Query: **cars** OK Cancel

P\_Code Colour Join Type.. Create New..

☒ Enforce Referential Integrity  
☐ Cascade Update Related Fields  
☐ Cascade Delete Related Records

Relationship Type: One-To-Many

**Edit Relationships** ? X

Table/Query: **drive** Related Table/Query: **cars** OK Cancel

D\_Code Drive Join Type.. Create New..

☒ Enforce Referential Integrity  
☐ Cascade Update Related Fields  
☐ Cascade Delete Related Records

Relationship Type: One-To-Many

**Edit Relationships** ? X

Table/Query: **extras** Related Table/Query: **cars** OK Cancel

E\_Code Extras Join Type.. Create New..

☐ Enforce Referential Integrity  
☐ Cascade Update Related Fields  
☐ Cascade Delete Related Records

Relationship Type: One-To-Many

Field Name	Data Type
Reg_No	Short Text
Model	Short Text
Colour	Number
Drive	Short Text
Extras	Short Text
Year	Number

Cars table

Table name – appropriate e.g. Car, Cars, Vehicles	1 mark
Appropriate fieldnames	1 mark
Reg_No as primary key	1 mark
Reg_No – 7 characters long	1 mark
Model field alphanumeric/text	1 mark
Model field 12 characters long	1 mark
Colour data type set to integer	1 mark
Drive field alphanumeric/text	1 mark
Drive field 1 character	1 mark
Extras field alphanumeric/text	1 mark
Extras field 3 characters	1 mark
Year data type set to integer	1 mark
At least 1 appropriate validation routine	1 mark



drive		Drive table      Table name – appropriate e.g. Engine      1 mark Appropriate fieldnames      1 mark D_Code as primary key & alphanumeric      1 mark Drive field as alphanumeric/text      1 mark Cost field as numeric/currency to <b>2dp</b> 1 mark One correct field length      1 mark
Field Name	Data Type	
D_Code	Short Text	
Drive	Short Text	
Cost	Currency	

extras	
Field Name	Data Type
E_Code	Short Text
Extras	Short Text
Cost	Currency

Extras table	Table name – appropriate e.g. Extras	1 mark
	Appropriate fieldnames	1 mark
	E_Code as primary key & alphanumeric	1 mark
	Extras field as alphanumeric/text	1 mark
	Cost field as numeric/currency to <b>2dp</b>	1 mark
	One correct field length	1 mark

model	
Field Name	Data Type
Name	Short Text
Cost	Currency
Body_Style	Short Text

Model table	Table name – appropriate e.g. Model	1 mark
	Appropriate fieldnames	1 mark
	Name/Model as primary key & alphanumeric	1 mark
	Body Style field as alphanumeric/text	1 mark
	Cost field as numeric/currency to <b>2dp</b>	1 mark
	One correct field length	1 mark

paint	
Field Name	Data Type
P_Code	Number
Colour	Short Text
Factor	Number

Paint table	Table name – appropriate e.g. Colour(s), Paint	1 mark
	Appropriate fieldnames	1 mark
	Relationship to Cars table as primary key	1 mark
	P_Code as integer	1 mark
	Colour field as alphanumeric/text	1 mark
	Colour field length = 13	1 mark
	Factor field as decimal	1 mark

Query finance

Field:	Cost: [model].[cost]+[drive].[cost]+[extras].[cost]+[paint].[factor]*200	Price: ([Cost]+1000)*1.8
Table:		
Sort:		
Show:	<input checked="" type="checkbox"/>	
Criteria:		

Calculated fields created for Cost and Price			1 mark
Cost:	Field name: Model + Drive + Extras		1 mark
	+ (200		1 mark
	* Paint.factor)		1 mark
	All table and field names in square brackets		1 mark
Price:	Field name: 1.8 *		1 mark
	[Cost] + 1000...		1 mark
	...in brackets		1 mark

**Black, grey or blue models from 2019 by A Candidate ZZ9999 9999**

Colour	Model	Reg number	Year	Drive type	Extras	Body style	Cost	Price
<b>Black</b>								
	Alphadrive							
		AS515PH	2019	Electric Cell	LED lighting, Satellite navigation	Coupe	£5,820.00	£12,276.00
	Comfortdrive							
		BU939JN	2019	Hydrodrive	LED lighting	Hatchback	£6,340.00	£13,212.00
	Ecodriven							
		DG075NE	2019	Electric Cell	LED lighting, Satellite navigation	Saloon	£6,250.00	£13,050.00
	Finesse							
		BE511RC	2019	Residual Battery	Cruise control, LED lighting, Satellite navigation	Sports	£9,190.00	£18,342.00
		CB293UG	2019	Residual Battery	LED lighting	Sports	£8,120.00	£16,416.00
<b>Metallic Grey</b>								
	Alphadrive							
		BH460AF	2019	Dynamic Electric	Cruise control, LED lighting			
		CK817VE	2019	Electric Cell	Cruise control, LED lighting			
	Comfortdrive							
		EF705WA	2019	Hydrodrive	LED lighting, Satellite navigation			
<b>Midnight Blue</b>								

Query	Made in 2019	1 mark
	Wildcard search on LED lighting	1 mark
	Wildcard search for black, grey or blue	1 mark
Report	Appropriate title with candidate details	1 mark
	White text on a black background for title	1 mark
	Grouped by colour and model	1 mark
	Only 9 title text boxes & controls visible...	1 mark
	... Body_Style & Cost right aligned, fully visible	1 mark
	... other fields aligned as shown, fully visible	1 mark
	Correct 11 records located	1 mark
Step_2 pdf	Exported as step_2_ZZ999_9999.pdf file	1 mark

Colour	Model	Reg_No	Year	Drive type Extras	Body_Style Cost	Price
Bettadrive						
	CH498BA	2019	Quantumdrive		Hatchback	
			LED lighting		£6,665.00	£13,797.00
Duradrive						
	AV419BV	2019	Dynamic Electric		Estate	
			Cruise control, LED lighting		£5,910.00	£12,438.00
Finesse						
	EN756XH	2019	Residual Battery		Sports	
			Cruise control, LED lighting, Satellite navigation		£9,230.00	£18,414.00

## Audio



Clip1

Reverb added to the clip

1 mark

All sound amplified to maximum...

1 mark

...without clipping

1 mark

Noise reduction applied

1 mark

Exported as **23clip1\_zz999\_9999.mp3**

1 mark



Clip 2	Split with start of clip unchanged...	1 mark
	... added silence until 8.25 seconds	1 mark
	Better for the planet' moved to 8.25 seconds	1 mark
Mixing	Correct tracks mixed down to mono	1 mark
	Two mono tracks mixed down to stereo track ...	1 mark
	... Male voiceover only in left channel	1 mark
	... Female voiceover only in right channel	1 mark
	... no loss of voice track(s) or distortion	1 mark
Exported in mp3 format as <b>j23sound_ZZ999_9999.mp3</b>		1 mark